

Listing of Claims

1. (Original) A device for generating images and/or projections by means of an imaging method, which device includes a device for the detection of input radiation which includes at least one acquisition element which comprises a sensor with a Pr^{3+} -activated scintillator for converting the input radiation into UV radiation and a photodiode which converts an optical signal into an electrical signal.

2. (Currently Amended) A device for generating images and/or projections as claimed in claim 1, ~~characterized in that~~ wherein the Pr^{3+} -activated scintillator is chosen from the group $\text{LaPO}_4\text{:Pr}$, $\text{LuF}_3\text{:Pr}$, $\text{LuCl}_3\text{:Pr}$, $\text{LuBr}_3\text{:Pr}$, $(\text{Lu}_{1-x}\text{Y}_x)\text{PO}_4\text{:Pr}$ where $0 \leq x \leq 1$, $(\text{Lu}_{1-x}\text{Y}_x)\text{SiO}_5\text{:Pr}$, where $0 \leq x \leq 1$, $(\text{Lu}_{1-x}\text{Y}_x)\text{Si}_2\text{O}_7\text{:Pr}$, where $0 \leq x \leq 1$, $(\text{Lu}_{1-x}\text{Y}_x)\text{BO}_3\text{:Pr}$, where $0 \leq x \leq 1$, and $\text{Ca}_{1-2y}\text{Li}_2\text{SiO}_4\text{:Pr}_y\text{Na}_y$, where $0.001 \leq y \leq 0.2$.

3. (Currently Amended) A device for generating images and/or projections as claimed in claim 1 ~~or claim 2, characterized in that~~ wherein the device is arranged to carry out the PET method as the imaging method.

4. (Currently Amended) A device for generating images and/or projections as claimed in claim 1 ~~or claim 2, characterized in that~~ wherein the device is arranged to carry out the SPECT method as the imaging method.

5. (Currently Amended) A device for generating images and/or projections as claimed in claim 1 ~~or claim 2, characterized in that~~ wherein the device is arranged to carry out the imaging method by means of X-rays.

6. (Currently Amended) A device for generating images and/or projections as claimed in ~~one of the claims 1 to 5, characterized in that~~ wherein a color converter which contains a luminous substance which can be excited by UV radiation is arranged between the sensor and the photodiode in the device for the detection of input radiation.

7. (Currently Amended) A device for generating images and/or projections as claimed in claim 6, ~~characterized in that~~ wherein the color converter comprises a polymer light guide which is doped with the luminous substance that can be excited by UV radiation.

8. (Currently Amended) A device for generating images and/or projections as claimed in claim 6, ~~characterized in that~~ wherein the color converter comprises a polymer light guide and a separate layer with the luminous substance that can be excited by UV radiation.

9. (Original) A device for the detection of input radiation which includes at least one acquisition element which comprises a sensor with a Pr^{3+} -activated scintillator for converting the input radiation into UV radiation and a photodiode which converts an optical signal into an electrical signal.